

**REMARKS**

Formal drawings are attached hereto. Amendments to the specification and claims obviate the minor objections raised by the Examiner in paragraphs 5-8 of the Office Action.

Claim 1 has been canceled. Claims 2-26 have been canceled and rewritten as new claims 27-51, respectively. Claim 52 recites aspects that were recited in previous claim 2. Claim 27 (which corresponds to previous claim 2, which was not rejected under prior art or under 35 USC 112, first paragraph) has been rewritten in the form of an independent claim. Claims 29-31 and 33-35 (which correspond to previous claims 4-6 and 8-10, respectively) have been amended to depend from claim 27, thereby obviating rejections of those claims over prior art and/or under 35 USC 112, first paragraph.

Applicants thank the Examiner for her careful attention to detail with regard to alleged indefiniteness in the claims. Applicants have rewritten the claims to place them in a form more customary for U.S. patent practice, which alleviates all of the Examiner's suggested alleged indefinite aspects. The rejections under 35 USC 112, second paragraph are thus obviated.

As for the rejection in paragraph 9 of the Office Action, one of skill in the art would know the starting material for the biosynthesis of ergosterol, and would be aware of a variety of intermediate products of that biosynthesis pathway. Typical, non-limiting examples of such metabolic intermediates are disclosed in the specification, *e.g.*, at page 7, lines 9-12. See also claims 30 and 31. Although applicants believe the claims to be clear, they have been amended to further clarify that the intermediate products are intermediate products of the biosynthesis of ergosterol.

As for enablement, the Examiner's comments are rendered moot by the current claims which do not relate to just any gene in a genus. Those claims also render the anticipation rejection moot.

The rejection in paragraph 26 of the Office Action, requiring a deposit of the plasmids YepH2, YDpUHK3 and pADL-SAT and of AH22 yeast cells, is unwarranted.

A deposit of the plasmids is unnecessary, because one of skill in the art can readily reproduce them without undue experimentation, using methods taught by the specification. See the specification, for example at pages 20-21, for specific details as to how to produce these plasmids. See also MPEP 2404.02: "Applicant may show that a deposit is not necessary even though specific biological materials are required to practice the invention if those biological materials can be made or isolated without undue experimentation."

The yeast strain AH22 is widely used in the art and is readily available. A search of US patents issued between 1996-2002 revealed 70 patents in which AH22 cells were used. Clearly, there is no need for the instant inventors to deposit the strain.

In view of the preceding amendments and arguments, the application is believed to be in condition for allowance, which action is respectfully requested.

The Commissioner is hereby authorized to charge any fees associated with this response  
or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION:**

On page 27, lines 7-11, please replace the following paragraph as follows

Fig. 4 shows the growth behavior and ergosterol and squalene contents with different uracil supplementation. In the figure, OD = optical density, ~~Kultivierungszeit~~ = cultivation time, ~~Hefe-Trockengewicht~~ = yeast dry weight, ~~Uracilsupplementation~~ = uracil supplementation.